

# Howard & Howard

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August 31, 2012

**Attn: Compliance Tracker, AE-17J**  
**Air Enforcement and Compliance Assurance Branch**  
US Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

**Re: Request to Provide Information; Enviro-Safe Refrigerants, Inc.**

Dear Compliance Tracker:

We represent Enviro-Safe Refrigerants, Inc. ("Enviro-Safe") of Pekin, Illinois regarding the above-referenced request from US EPA to provide information pursuant to the Clean Air Act. This Information Request relates to a refrigerant identified as Enviro-Safe 22a, which is marketed in the United States as a hydrocarbon refrigerant replacement for R-407c (among other approved substitutes for Ozone Depleting Substances (ODS)). We understand that R-407c is an EPA-approved non-ozone depleting blend of HFC refrigerants R-32, R-125 and R-134a. Hence, Enviro-Safe 22a has been formulated as a "second-generation" substitute for an ODS. While the product may closely match the *properties* of R-22, is not intended to be sold in the United States as a direct replacement for any ODS chemical, including R-22.

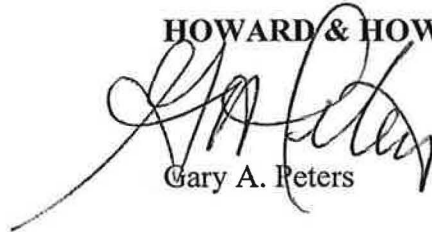
We understand that EPA's regulations developed under the Clean Air Act do not regulate the use of hydrocarbon refrigerants when they are used as replacements for non-ODS chemicals approved by EPA. Enviro-Safe 22a is a refined blend of petroleum gases that are liquefied under pressure. We are providing you the MSDS for this product, which is also available online to the public. Because our product is marketed in the United States as a "second generation" substitute for an ODS, Enviro-Safe 22a does not fall under the Clean Air Act SNAP regulations. Enviro-Safe also extensively markets and distributes its products internationally, and has marketed Enviro-Safe 22a to these international customers as direct replacements for certain ODS, which is fully compliant with international market regulations. Indeed, Enviro-Safe was awarded the 2008 Illinois Governor's Export Award on June 29, 2009.

US EPA  
August 31, 2012  
Page 2

Enviro-Safe is a responsible corporate citizen and takes its environmental compliance obligations seriously. We believe we are in full compliance with all US EPA regulations applicable to the sale of Enviro-Safe 22a in the United States. If you have any questions, please do not hesitate to contact me.

Sincerely,

**HOWARD & HOWARD ATTORNEYS PLLC**

A handwritten signature in black ink, appearing to read "Gary A. Peters", is written over the printed name. The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Gary A. Peters

Enclosure - MSDS

# MATERIAL SAFETY DATA SHEET

## Enviro-Safe™ 22a Refrigerant 30 & 50 lb Cylinder

### SECTION 1 – IDENTIFICATION

**Company:** Enviro-Safe Refrigerants, Inc.

400 Margaret Street  
Pekin IL 61554  
309-346-1110

**Product Name:** Enviro-Safe™ 22a Refrigerant  
**Proper Shipping Name:** Petroleum Gases Liquefied  
**UN Number:** UN1075  
**Dangerous Goods Hazard Class/Division:** 2.1

**CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER**  
**1-800-424-9300**

### SECTION 2 – PHYSICAL DESCRIPTION AND/OR PROPERTIES

Appearance/Odor:	Clear, Colorless; odor added	Physical State:	Gas
Odor Threshold:	None available	Specific Gravity:	0.5066
Coeff. Water/Oil Dist.:	<1	Evaporation Rate:	Rapid
Freezing Point:	-305°F	Boiling Point:	-44.5°F
Vapor Density: (est.)	1.52	pH:	N/A
Vapor Pressure: (PSIG)	70 @ 110°F		

### SECTION 3 – FIRE OR EXPLOSION HAZARD

Auto Ignition Temperature: 873°F

Flashpoint: Not Available

Lower Flammable Limit (LEL): 2.15%

Upper Flammable Limit (UEL): 9.60%

**Extinguish Media:** If possible, stop flow of gas. Use water to cool fire-exposed tanks, surroundings and to protect personnel working on shut off. Water spray, dry powder, or carbon dioxide can be directed at flame area to reduce fire intensity. Do not extinguish flames unless leak can be stopped.

**Hazardous Combustion Products:** Normal combustion forms carbon monoxide.

**Sensitivity to Static Discharge:** Vapor may ignite if exposed to static discharge.

**Explosion Data:** Sensitivity to impact. Mixture is not sensitive.

**Fire and Explosion Hazard:** Flammable vapor may form if allowed to mix with air. Accumulation of gas is an ignition hazard. Vapors are heavier than air and may travel to an ignition source.

### SECTION 4 – INGREDIENTS

Hazardous Ingredients	%	Cas Number	LD50	P.E.L.	ACGIH TLV UNITS
Alkanes	100		n.ap.	800 ppm	800 ppm

(Enviro-Safe™ Refrigerant contains a trade secret odor of 1% -5% unless otherwise noted.)

### SECTION 5 – REACTIVITY DATA

**Chemical Stability:** This material is chemically stable.

**Conditions To Avoid:** Avoid sparks, open flame or any source of ignition.

**Incompatible Materials:** Avoid contact with strong oxidizing agents such as chlorine, permanganates and dichromate's.

**Decomposition Products:** This product may produce carbon monoxide with a deficiency of oxygen.

**Hazardous Polymerization:** will not occur.

**Polymerization To Avoid:** Keep separate from oxidizing agents.

## **SECTION 6 – HEALTH HAZARD**

**As with most flammable products, hydrocarbon refrigerants demand basic common sense during use.**

**Inhaled/Asphyxiant:** This product may cause irritation of the respiratory tract. May also cause headaches or dizziness at moderate exposures. Heavy exposure may cause anemia and irregular heart rhythm, respiratory arrest and death at elevated exposures.

**Ingestion:** Not likely to occur.

**Eye Contact:** Irritating if the liquid gets into eyes, with a possible hazard from freezing due to rapid evaporation. Extremely high vapor concentration may also be irritating.

**Skin Contact:** Exposure to rapidly expanding gas or vaporizing liquid may cause frost damage to tissue. Prolonged contact may irritate the skin and cause dermatitis.

**Chronic:** Prolonged exposure to this product may cause central nervous system disorder and or damage.

## **SECTION 7 - FIRST AID**

**Inhaled:** In emergency situations, use proper respiratory protection and immediately remove the victim to fresh air. Administer artificial respiration if breathing has stopped. Seek medical attention promptly in serious cases of over exposure.

**Eyes:** Flush eyes with tepid water for 15 minutes. Seek immediate medical advice immediately.

**Skin:** Avoid skin contact with the liquid. Remove contaminated clothing and wash the exposed area with soap and water.

**Frostbite:** Obtain medical assistance. If medical assistance is not available immediately, place person in a warm area as soon as possible and allow the injured area to warm gradually. **DO NOT WARM EXPOSED AREA TO EXCESS HEAT OR COLD.**

**Ingestion:** Unlikely to be a problem, this should not occur.

## **SECTION 8 - SAFE HANDLING**

**Spills:** Shut off ignition source and source of leak. Evacuate all non-essential personnel from the area. If possible, ventilate the area. Use water spray to disperse vapors. Isolate and ventilate area until gas has dispersed. If the incident is significant seek assistance from local fire, police and other relevant authorities.

**Waste Disposal Method:** Dispose of product in accordance with local, county state, and federal regulations.

**Storage, Handling, Shipping:** Store in a cool, well-ventilated area. Store away from strong oxidizing agents, chlorine dioxide, excessive heat and/or static discharge. Cylinders must be stored and transported in an upright position.

**Other Precautions:** Empty containers may contain flammable or combustible vapors. Do not reuse without adequate precautions.

## **SECTION 9 -PERSONAL PROTECTION**

**Engineering Controls:** Use only in a well ventilated area! Ensure there is good ventilation. If additional ventilation is needed use auxiliary ventilation equipment ensuring that all systems are well grounded and spark proof.

**Eyes:** Wear safety chemical safety glasses with side shields and/or goggles.

**Gloves:** Use thermal, chemical resistant gloves when handling this product.

**Other protective clothing:** Long sleeves, pants and close-toed shoes.

**Respiratory Protection:** If ventilation of the area is not adequate use a NIOSH approved respirator to prevent overexposure by inhalation.

## **SECTION 10 -PREPARATION**

Enviro-Safe Refrigerants, Inc., 400 Margaret Street, Pekin, IL 61554

Telephone: 309-346-1110

December 1, 2004  
Revised November 3, 2010

All information provided for this MSDS sheet by Enviro-Safe Refrigerants, Inc. is offered in good faith and is believed to be accurate to the best knowledge of the preparation analyst. The information contained in this document is based on documentation provided by the supplier and other documentation/information available at the date of preparation. Enviro-Safe does not guarantee the accuracy of this document and this information is offered without warranty, guarantee or liability on the part of the preparation analyst in good faith.